

Pennoni

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May 30, 2000

WARM-9608.002.01

Mr. Lonnie Monaco
Naval Facilities Engineering Command (NAVFACENGCOM)
Northern Division
Environmental Contracts Branch, Mail Stop No. 82
10 Industrial Highway
Lester, Pennsylvania 19113

RE: RI/FS Report for OU-9 (Area A: Media other than groundwater).
Former NAWC Warminster

Dear Mr. Monaco:

Pennoni Associates Inc. ("Pennoni"), on behalf of Warminster Township, has reviewed the "*Remedial Investigation/Feasibility Study Report for Operable Unit 9*" prepared by Tetra Tech NUS and dated April 2000. Based on our review of the above referenced report, we offer the following comments.

1. The surface and subsurface post-excavation concentrations for lead exceed the PADEP soil to groundwater pathway standard. The lead levels do exceed the clean-up goal of 1000 mg/kg, which contradicts the first bullet in Section 4.9. The potential to impact groundwater and surface water needs to be addressed.
2. The report discusses detections of various contaminants in surface water but does not compare them to the PADEP surface water criteria (Chapter 16). A review of the surface water data reveals that there were several exceedances of the PADEP human health criteria, including tetrachloroethene, benzo(a)anthracene, and pyrene. The risk assessment concluded that there was no unacceptable risk to humans because of the industrial land use. It was not clear in the report how far downstream the impacts extend and where the PADEP criteria are met. An evaluation of downstream impacts should be provided.
3. Several organic and inorganic parameters were found with elevated concentrations posing ecological risks in the stream sediments. The apparent source is Area A and the storm sewer outfalls. The origin of the stormwater is not clearly delineated. Although ecological risks are present, no remediation alternatives for the sediments are proposed.

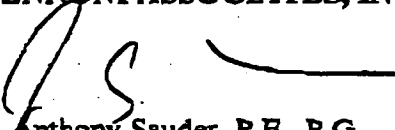
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4. The only alternative evaluated in the FS is *Institutional Controls and Environmental Monitoring*. Alternatives that would have included remediation or capping of impacted soils or sediments were excluded in the screening process. Based on our review, we believe that there are feasible remediation alternatives that should be evaluated in the normal analysis process.

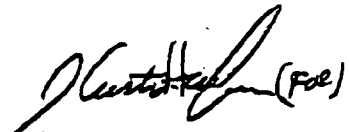
If you have any questions, please do not hesitate to contact us.

Very Truly Yours,

PENNONI ASSOCIATES, INC.



J. Anthony Sauder, P.E., P.G.
Senior Hydrogeologist



Kevin J. Davis, P.E.
Associate Vice President

cc: Robert Camarata, Warminster Township

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